

**ABSTRACT**

**Reinforced material with ionic conduction, use thereof  
in electrodes and electrolytes**

The invention relates to a solid material with  
5 ionic conduction, which can be used as an electrolyte  
or as a component of a composite electrode.

The material comprises a polymer matrix, at  
least one ionic species and at least one reinforcing  
10 agent. The polymer matrix is a solvating polymer  
optionally having a polar character, a non-solvating  
polymer carrying acidic ionic groups, or a mixture of a  
solvating or non-solvating polymer and an aprotic polar  
15 liquid. The ionic species is an ionic compound selected  
from salts and acids, said compound being in solution  
in the polymer matrix, or an anionic or cationic ionic  
group fixed by covalent bonding on the polymer, or a  
combination of the two. The reinforcing agent is a  
cellulosic material or a chitin.